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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,325	12/26/2001	Akira Matsumoto	791_181	3228
25191	7590	10/04/2007		
BURR & BROWN PO BOX 7068 SYRACUSE, NY 13261-7068			EXAMINER CHEVALIER, ALICIA ANN	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/036,325

Applicant(s)

MATSUMOTO ET AL.

Examiner

Alicia Chevalier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/23/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

RESPONSE TO AMENDMENT

1. Claims 2-6 and 20-23 are pending in the application, claims 1 and 7-19 have been cancelled.
2. Amendments to the claims, filed on July 23, 2007, have been entered in the above-identified application.

WITHDRAWN REJECTIONS

3. The 35 U.S.C. §112 rejections of claim 2-6 and 20-23, made of record in March 22, 2007, page 2-3, paragraph #5 have been withdrawn due to Applicant's amendment in the response filed July 23, 2007.

REJECTIONS

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

5. Claims 2-6 and 20-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Mills (U.S. Patent No. 5,761,363) in view of Pleibel et al. (U.S. Patent No. 4,274,854), Logan et al. (U.S. Patent No. 6,192,178) and Cooke et al. (U.S. Patent No. 5,561,731).

Regarding Applicant's claims 20 and 21, Mills discloses an optical array made of a ribboned optical fiber (*optical fiber ribbon, title*) comprising a plurality of optical fibers (*col. 3,*

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lines 10-12 and figures 1 and 3) and a cured ribbon portion (*protective common outer matrix coating, col. 3, lines 18-21 and figures 1 and 3*). The cured ribbon portion is deemed to have a first and second lateral ends and surrounding at least some of the optical fibers (*figures 1 and 3*). The optical fibers extend individually from the second end of the ribbon portion (*figures 1 and 3*). The ribbon portion comprises at least an external exposed surface comprising a material that can be stripped to expose the optical fibers without damaging the optical fibers (*col. 1, lines 54-58*). The polarization-maintaining fibers are deemed to have a predetermined plane of polarization before the ribbon portion is cured.

Mills fails to disclose that the optical fibers are polarization-maintaining fibers or that the ribbon portion has a length of 2 to 300 mm.

Pleibel discloses optical fibers that are polarization maintaining fibers (*title*). Polarization maintaining optical fibers are preferred because maintaining linear polarization is important for efficient coupling between single-mode fibers and polarization sensitive optical devices and for achieving maximum gains in fiber Raman and parametric oscillators and amplifiers (*col. 1, lines 10-15*).

Logan discloses a ribbon length of 200 mm to 1000 mm (*col. 5, lines 9-11*). Cooke discloses a ribbon length of 10 cm, i.e. 100 mm (*col. 2, lines 5-7*).

Therefore, the exact length of the ribbon is deemed to be a result effective variable with regard to the intended use of the ribbon. It would require routine experimentation to determine the optimum value of a result effective variable, such as ribbon length, in the absence of a showing of criticality in the claimed ribbon length. *In re Boesch*, 205 USPQ 215 (CCPA 1980),

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In re Woodruff, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). One of ordinary skill in the art would have been motivated by Logan and Cooke to have a ribbon portion length of 2 to 300 mm.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use polarization maintain fibers as the optical fibers in Mills as taught by Pleibel because polarization maintaining fiber are preferred because to maintaining linear polarization is important for efficient coupling between single-mode fibers and polarization sensitive optical devices and for achieving maximum gains in fiber Raman and parametric oscillators and amplifiers.

The limitation “rotated” is a method limitation and does not determine the patentability of the product, unless the process produces unexpected results. The method of forming the product is not germane to the issue of patentability of the product itself, unless Applicant presents evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. MPEP 2113.

Regarding Applicant’s claim 22, Mills discloses that at least some of the optical fibers also extend from the first lateral end of the ribbon portion (*figures 1 and 3*).

Regarding Applicant’s claim 23, Mills discloses that the cured ribbon portion is a cured adhesive, since the protective common outer matrix coating bonds the fibers together and promotes tight adhesion (*col. 2, lines 20-29*).

Regarding Applicant’s claim 2, Mills discloses that the ribbon portion is formed by fixing and coating the optical fibers with an adhesive (*col. 2, lines 20-29 and figures 1 and 3*).

Regarding Applicant’s claims 3-6, Mills discloses that the ribbon portion further comprises positioning means (*col. 3, line 17 and the figures*) which are deemed to maintain

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alignment of the optical fibers. The positioning means form as a series of convex and concave shapes, which are disposed at regular pitch and a curved wavy shape (*figures 1 and 3*).

ANSWERS TO APPLICANT'S ARGUMENTS

6. Applicant's arguments in the response filed July 23, 2007 regarding the 35 USC 112 rejections of record have been considered but are moot since the rejections have been withdrawn.

7. Applicant's arguments in the response filed July 23, 2007 regarding the 35 USC 103 rejection over Mills in view of Pleibel, Logan and Cooke of record have been carefully considered but are deemed unpersuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant arguments center on the "rotational" factor of the fibers before the ribbon is cured. Applicant argues that claimed invention allows for the individual P/M fibers to be rotated in relation to one another and secured in a desired rotational alignment through the use of a cured ribbon portion Applicant further states that P/M fibers must be rotationally aligned to a predetermined plane of polarization with respect to adjoining P/M fibers.

It is noted that the claims now recite "wherein each of the polarization-maintaining optical fibers are rotated to a predetermined plane of polarization before the ribbon portion is cured." Applicant's arguments regarding the "predetermined plane of polarization" are not commensurate in scope with the claims. Applicant's claims only require any predetermined

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plane of polarization, and since the fibers are polarized they will have a predetermined plane before the ribbon portion is cured. Applicant's arguments are centered on a specific plane of polarization with respect to adjoining fibers and rotational needs for consumer use. These limitations are not stated in the claims. It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable,

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ac
9/30/07



**ALICIA CHEVALIER
PRIMARY EXAMINER**